

**Clean Listing of Claims:**

1. (presently amended) A safety syringe sealing system, the system comprising:  
a safety syringe having a barrel, a needle, a plunger and a needle sheath, wherein the needle sheath is movable relative to the barrel and the needle between a retracted position where the needle is exposed, to an extended position where the needle is protected, the needle sheath having an open end defined therein; and  
a plug that is engageable with the needle sheath at the open end thereof when the needle sheath is in the extended position.
2. (original) The system of claim 1, wherein the needle sheath is tubular.
3. (presently amended) The system of claim 1, wherein the needle sheath, when in the extended position, is locked and prevented from returning to the retracted position.
4. (presently amended) The system of claim 1, wherein the needle sheath includes means for rotating the needle sheath about the barrel of the safety syringe to lock the needle sheath in the extended position.
5. (presently amended) The system of claim 1, wherein the plug includes at least one receptacle to accommodate a portion of the needle sheath.
6. (presently amended) The system of claim 1, wherein the plug includes at least one flange that extends radially outward therefrom and that contacts an inner surface of the needle sheath when the plug is engaged with the needle sheath.
7. (presently amended) The system of claim 1, further comprising a pharmaceutical pig having a base and a cap, the base and cap each having a hollow center section that is capable of accommodating a portion of the safety syringe.
- 8-12. (not entered)

13. (original) The system of claim 7, wherein the base and cap of the pharmaceutical pig interact to seal the safety syringe within the pharmaceutical pig.
14. (presently amended) A method of using a safety syringe system, the method comprising:  
moving a needle sheath of a safety syringe from a retracted position where a needle of the safety syringe is exposed, to an extended position where the needle is protected, the needle sheath having an open end defined therein; and  
plugging the open end of the needle sheath when the needle sheath is in the extended position.
15. (presently amended) The method of claim 14, wherein the moving of the needle sheath includes preventing the needle sheath from returning to the retracted position.
16. (presently amended) The method of claim 14, wherein the plugging of the open end of the needle sheath includes engaging a plug around an outer circumference of the needle sheath proximate the open end thereof when the needle sheath is in the extended position.
17. (not entered)
18. (presently amended) The method of claim 14, wherein the plugging of the open end of the needle sheath includes engaging a plug, having a cylindrical portion and at least one flange extending radially therefrom, with the open end of the needle sheath.
19. (presently amended) The method of claim 14, wherein the plugging of the open end of the needle sheath includes engaging a plug, having at least one u-shaped receptacle, with an outside circumference of the needle sheath.

20. (presently amended) A method of using a safety syringe system, the method comprising:  
inserting a plug in a hollow center section of a base of a pharmaceutical pig  
having a cap;

moving a needle sheath of a safety syringe from a retracted position where a  
needle of the safety syringe is exposed to an extended position where the needle is protected, the  
needle sheath having an open end defined therein through which the needle passes during the  
moving of the needle sheath from the retracted position to the extended position;

inserting the safety syringe into the hollow center section of the base of the  
pharmaceutical pig, wherein the inserting of the safety syringe includes engaging the sheath plug  
in the pharmaceutical pig with the needle sheath at the open end thereof to plug the open end of  
the needle sheath, the needle sheath being in the extended position during the engaging of the  
sheath plug with the needle sheath.

21. (presently amended) The method of claim 20, further including locking the needle sheath  
when the needle sheath is in the extended position to prevent the needle sheath from  
returning to the retracted position from the extended position.

22. (presently amended) The method of claim 21, wherein the locking of the needle sheath  
includes rotating the needle sheath about the barrel of the safety syringe.

23. (presently amended) The method of claim 22, further comprising sealing the base and a  
cap of the pharmaceutical pig together to contain the safety syringe within the  
pharmaceutical pig.

24. (presently amended) The method of claim 20, wherein the engaging of the sheath plug  
with the needle sheath includes engaging the sheath plug with an outside circumference  
of the needle sheath.

25-31. (not entered)

32. (new) The method of claim 20, wherein the engaging of the sheath plug with the needle sheath includes contacting the needle sheath with at least one flange that extends radially from the sheath plug.
33. (new) The method of claim 20, wherein the sheath plug includes at least one u-shaped receptacle.